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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/509,438 | 09/23/2004 | Detlef Axmacher | 4754/PCT | 7465 |

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| EXAMINER |
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CHANG, CHING

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| ART UNIT | PAPER NUMBER |
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3748

DATE MAILED: 03/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/509,438

Applicant(s)

AXMACHER ET AL.

Examiner

Ching Chang

Art Unit

3748

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 11-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3, and 11-17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09/23/2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>09/23/2004</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

This Office acknowledges the first and the second Preliminary Amendments filed on 09/23/2004. Claims 4-10 are cancelled, and new claims 11-17 are added as requested.

Drawings

1. The drawings are objected. See the attached Notice of Draftperson's Patent Drawing Review (PTO-948). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

In addition, the drawings must show every feature of the invention specified in the claims. Therefore, the camshaft must be shown and labeled or the feature(s) canceled from the claim(s). No new matter should be entered.

Specification

2. The disclosure is objected to because of the following informalities:
 - The Applicants are required to insert a Paragraph after the title of the invention in the Specification, which indicates that this instant application is a national stage application filed under 35 U.S.C. 371 based on International Application No. PCT/DE03/01620 filed on 05/20/2003, and claims priority under 35 U.S.C. 119 of Germany Application No. 102 22 475.7 filed on 05/22/2002.
 - The referred claim(s) in the Specification must be deleted, e.g. " claim 1 " on Page 1. The claims which may ultimately be allowed, may not include claim 1 as referenced in the Specification.

Appropriate corrections are required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. ***Claims 1-3, 11, and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Axmacher et al. (US Patent 6,523,512).***

Axmacher discloses a gear with two turntables (1.1, 2, 2.1) arranged into one another, which are interconnected via a swashplate (3b), wherein the swashplate is connected with the first turntable (1.1) via at least one pin (3.3), and wherein the swashplate is connected with the second turntable (2.1, 2) via gear rings (1.2, 3.1, 3.2, 2.2); wherein the at least one pin formed at the swashplate or at the first turntable is arranged in a slot-shaped recess (see Fig. 4) in the first turntable or the swashplate; wherein a lubricant supply is provided for the connection between the swashplate and the two turntables.

In addition, when the product by process claims 2-3 are rejected over a prior art product such as that shown in Axmacher reference, which appears to be identical, although produced by a different process, the burden is upon the applicants to come forward with evidence establishing an unobvious difference between the two. See *In re Marosi*, 218 USPQ 289 (Fed. Cir. 1983).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-3, 11, and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aximacher et al. (US Patent 6,523,512).

Aximacher discloses a gear (See Figs. 2-3) with two turntables (1.1, 2, 2.1) arranged into one another, which are interconnected via a swashplate (3), and wherein the swashplate is connected with the second turntable (1.1) via gear rings (1.2, 3.1); wherein a lubricant supply is provided for the connection between the swashplate and the two turntables; wherein the first turntable (2.1, 2) is the outer one of the two turntables arranged into one another and wherein the second turntable (1.1) is the inner one of the two turntables arranged into one another; wherein the first turntable is formed as a camshaft gear of an internal combustion engine, which camshaft gear is connected with a crankshaft (through 6), and wherein the second turntable is connected with a camshaft (1) of the internal combustion engine, and wherein the gear is formed for adjusting the angle of rotation of the camshaft relative to the angle of rotation of the crankshaft.

Aximacher further discloses a swashplate (3a)(See Fig. 4) being connected with a turntable (1.1) via at least one pin (3.3). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized the teaching of using a pin to connect a swashplate with a turntable, from the Axmacher reference, since the use would provide a more direct and controllable valve timing train.

In addition, when the product by process claims 2-3 are rejected over a prior art product such as that shown in Axmacher reference, which appears to be identical, although produced by a different process, the burden is upon the applicants to come

forward with evidence establishing an unobvious difference between the two. See *In re Marosi*, 218 USPQ 289 (Fed. Cir. 1983).

7. *Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Axmacher et al. (as applied to claim 11 above) in view of perry (US Patent 4,515,110).*

Axmacher discloses the invention, however, fails to disclose a bronze bushing being arranged as a counter bearing on the pin and/or into the slot-shaped recess.

The patent to Perry on the other hand, teaches that it is conventional in the engine art art, to utilize a bronze bushing 33 in a rod 30 which is in sliding contact with a crankshaft pin 19.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized the bronze bushing as taught by Perry in the Axmacher device, since the use thereof would provide an improved and less friction loss engine valve train.

Conclusion

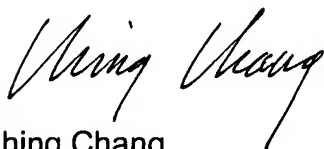
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ching Chang whose telephone number is (571)272-4857. The examiner can normally be reached on M-Th, 7:00 AM -5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Denion can be reached on (571)272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3748

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner

A handwritten signature in black ink, appearing to read "Ching Chang". The signature is fluid and cursive, with the first name "Ching" and last name "Chang" clearly distinguishable.

Ching Chang